CLAIM AMENDMENTS

1. (**Original**) A method for detecting and classifying a structure of interest in a three-dimensional medical image, comprising the steps of: (a) defining one or more image planes in a subvolume in said three-dimensional medical image; (b) determining edge displacement fields for a plurality of slices in each of said defined image plane, wherein said plurality of slices are defined over the axis perpendicular to said corresponding image plane; (c) combining said determined edge displacement fields for each of said defined image plane; (d) determining parameters based on said combined edge displacement field; and (e) classifying said structure of interest based on said determined parameters.

2. (**Original**) The method as set forth in claim 1, wherein at least two of said defined image planes are mutually orthogonal image planes.

3. (**Original**) The method as set forth in claim 1, wherein said step of classifying is based on a combination of said parameters determined from two or more of said defined image planes.

4. (**Original**) The method as set forth in claim 1, wherein the step of classifying further comprises the step of distinguishing a polyp from a non-polyp.

5. (**Original**) The method as set forth in claim 1, wherein said subvolume is selected by a pre-detection of said structure of interest.

6. (**Original**) The method as set forth in claim 1, wherein said three-dimensional medical image comprises a three-dimensional segmented computed tomography image.

7-10. (**Canceled**)

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11. (**Currently Amended**) A program storage device <u>having a computer readable medium</u> accessible by a computer, tangible embodying a program of instructions <u>on said computer readable medium and</u> executable by said computer to perform method steps for detecting and classifying a structure of interest in a three-dimensional medical image, comprising: (a)

10   means for defining one or more image planes in a subvolume in said three-dimensional medical image; (b) means for determining edge displacement fields for a plurality of slices in each of said defined image plane, wherein said plurality of slices are defined over the axis perpendicular to said corresponding image plane; (c) means for combining said determined edge displacement fields for each of said defined image plane; (d) means for determining

15   parameters based on said combined edge displacement field; and (e) means for classifying said structure of interest based on said determined parameters.

12. (**Original**) The program storage device as set forth in claim 11, wherein at least two of said defined image planes are mutually orthogonal image planes.

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13. (**Original**) The program storage device as set forth in claim 11, wherein said means for classifying is based on a combination of said parameters determined from two or more of said defined image planes.

14. **(Original)** The program storage device as set forth in claim 11, wherein said means for classifying further comprises means for distinguishing a polyp from a non-polyp.

5   15. **(Original)** The program storage device as set forth in claim 11, wherein said subvolume is selected by a pre-detection of said structure of interest.

16. **(Original)** The program storage device as set forth in claim 11, wherein said three-dimensional medical image comprises a three-dimensional segmented computed

10   tomography image.